

1-to-1 Laptop Initiative: Leveling the Playing Field

By Sue Stidham

Imagine a school where every student has global wireless access and a visa to high tech, personalized instruction. Enter Baxter Springs, Kansas, where all the teachers and their students have individual laptops in a 24/7 environment. Such 1-to-1 initiatives actually meet the expectations of the digital generation and these students aren't forced to "dumb down" when they enter school. However, the 1-to-1 laptop initiative is far more complicated than simply the placement of one laptop in the hands of each student and teacher. One-to-one learning involves a strong commitment of school and community. As a result of Baxter Springs's investment, their students have crossed far beyond the borders of Kansas, while preparing for their 21st century jobs. What follows will demonstrate what effort is required to successfully implement a 1-to-1 project.

INFRASTRUCTURE AND STAKEHOLDERS

Before any school can undertake a 1-to-1 initiative, foundational elements are needed: a robust Internet access, a solid working and dependable infrastructure, a campus-wide wireless access, compatible hardware and software, and mounted projectors in every class.

Although infrastructure is vital, without buy-in from both school and community, no technology initiative will succeed. Therefore, a philosophical foundation must be established before initial steps can be taken. The first step toward the 1-to-1 initiative is the buy-in of administration and teachers. Even if a school district has a blend of teachers (some who are highly enthused and others who are less) the contagion will ignite, according to the Baxter Springs scenario. Students will automatically buy-in and need no encouragement, so little or no time expenditure is needed for them. The second most important area of buy-in is the parent involvement; they will assume responsibility and face the possible cost of replacing damaged laptops, etc. Open forums for question and answer sessions will reduce ambiguity and fear. The third buy-in is the community as partners. All stakeholders are critical catalysts for the initiative and their involvement from the earliest stages possible will further ensure success.

BENEFITS FOR TEACHERS

Jami Theissen, Baxter Springs business/computer teacher, says the greatest benefit to the 1-to-1 initiative is the improved quality of homework. "Our students turn in assignments that are far superior to their work in the past and they even thank us for making the assignment." She laughs a little, "Before the laptops, students used to waste time. But now when they have ten minutes left at the end of a class, they open their laptops and work. Ten minutes here and there add up to much better assignments." She continues, "They also work on their assignments at home lying on their beds watching television and/or listening to music. And they don't see this as school work since they're working with technology that they consider fun. I think we had one student who would have dropped out of school without the laptop initiative, and I wonder if we don't have others." One student in my class summed it up well, "By making learning easier and fun, the laptop initiative has greatly increased my capacity and willingness to learn."

Through this initiative, flexibility of assignments ranks high on the list. Students now complete technology enhanced, collaborative projects around the clock that once had to be completed only during school hours. Rigor is added because the digital divide has been eliminated. Ease of communication allows teachers with assignments to email students 24/7 and instantly reach students who are absent. Yet communication is protected. With filtering systems, teachers can communicate with students and vice versa during school hours; but students cannot communicate with students until after school hours. Another benefit is less actual paper transfer. Teachers have drop boxes so they can choose whether or not to have assignments in hard copy. The automatic record keeping with date and time of assignment submissions adds to accountability without any

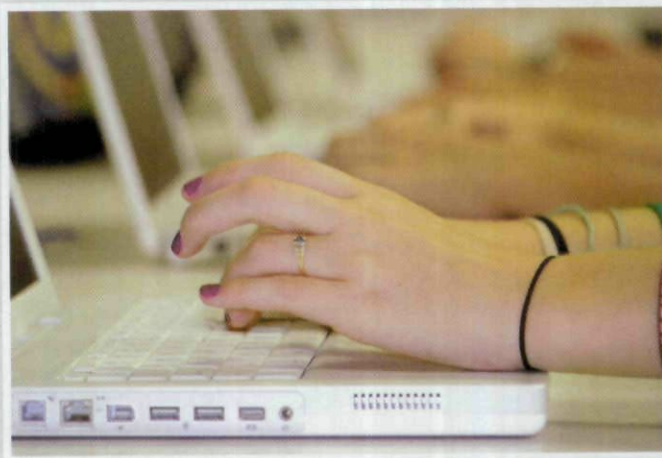


Photo credit Ross Davis

additional teacher time. Many teachers process assignments and send them back to students in the 24/7 environment. Due to the automated system, teachers increase their time, accountability, and efficiency.

SCHOOL OF LEARNERS

"Learn how to learn" is the Baxter Springs motto and this applies to both teachers and students. "Play with it" is the common theme. Techie students commonly insert a piece of software and play until they master the program or game. Baxter Springs believes that this "playing" method of learning is a 21st century survival tool for students and teachers. Technology facilitators encourage ad hoc professional development. Teachers come to their tech facilitators only when they need help, and teachers aren't required to attend formalized professional development sessions. Teachers especially learn from their students in the area of technology because students are often on the cutting edge. The professional development leaders also listen to the teacher and students. For example, one teacher wanted *Comic Life* installed on his computer because he saw the educational value. Before long, other teachers wanted the same software and then *Comic Life* was installed school-wide. This commitment to *Comic Life* is an example of teachers leading instead of being led. Within this school of learners, an expected outcome is teacher and student achievement.

PROTECTION OF THE COMPUTERS

Baxter purchased an insurance policy to protect their investment in the laptops, and all students must subscribe to that plan. The cost is based on the free and reduced lunch eligibility, with students paying from \$50-\$100. Then, if the laptop breaks due to a student's negligence, the student has to pay an additional fee of \$100. The insurance policy covers the cost of replacing the laptop. If laptops are stolen, then the school processes this matter as it would any stolen property. However, neither of these scenarios have been a significant problem.

An emergency room (or computer support center) is also critical to quickly fix computers or offer substitutions until the computers are fixed. Time is too critical for both students and teachers to do without their computers.

EXPECTATIONS FOR STUDENTS

During school hours, students are expected to be on task when they use their computers. There are no exceptions. The school has only two questions to determine if students are on task: "What class is this assignment for?" and "What is the assignment?" If a student can't satisfactorily answer either of these two questions, the student receives a detention.

will email or talk with the specific teacher to verify the assignment.

For instance, one student was found searching for a wedding dress. The technology teacher went in remotely and asked her what assignment was this site for and the student responded the Family Consumer class. The technology teacher emailed the Family Consumer teacher and found out that the class was planning weddings, so the technology teacher knew that the next thirty students she saw viewing wedding dresses would be within the policy. But, had this not been the case, the technology teacher would have printed a screen shot and attached the page to a detention slip.

MANAGEMENT OF MONITORING

While monitoring may sound daunting, in an average school day, only 20%-40% of students will be on the computer at any given moment. Then, the five personnel responsible for monitoring divide the classes into five quadrants so they aren't duplicating any surveillance. Each screen shot displays approximately 15 student computer screens at once, so a quick glance doesn't take long.

Once the school bell rings, the rules change. Students are cautioned to access what is appropriate and legal. The school officials explain

students for 21st century job skills. And, there has been no pressure on teachers or students to use the laptops—the initiative just caught on. The laptops aren't used all the time. When they're appropriate, the teachers and students open them. When they're not, they close them. And that's the way it should be. Ross quickly adds, "Yes, and now we're considering a summer program because our students want their computers during the summer, too. It's a real problem for students when we take the laptops at the end of the school year. Once they're hooked, they just can't do without them."

THE 1-TO-1'S FUTURE

The generation now in elementary and lower middle school is Generation Z—the Google Generation, the iGeneration, the Generation Einstein, the Net Generation, the Digital Generation, and Generation Multi-task. Will schools be able to prepare this generation for their futures in the business world with the ratio of computers as it stands today? Probably not, especially with the feedback from the 1-to-1 laptop initiatives that are in place now.

When students become immersed in project-based learning with music, video clips, photography, and graphics, classroom time morphs into warp speed. Students chatter, collaborate, scramble, and rush to beat the clock. The students and the teacher work as one and they all learn. And often the one student who has talent in a specific area is the one who might be less popular outside the classroom. So, important things happen in the 1-to-1 classroom that can't be measured by assessment. Such initiatives are so new that they're creating foundational data for the future. But, for now, schools are observing increased student achievement, which is a solid beginning. And iStudents are content to be explorers in their digital worlds of Bebo, CyWorld, Orkut, and Hi5 and what lies beyond. (After school hours—that is—no detentions, please!) 🌈

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MONITORING THROUGH REMOTE DESKTOPS

So, how are the laptops monitored? Five desktop computers have remote desktop capacity as follows: the business technology teacher, the registrar, the technology coordinator, the technology coordinator assistant, and the librarian. Any of these personnel can view the desktops of any student at any given moment during the school day. And, if there is a question about the appropriateness of the assignment, a quick question will appear on the student's email. "What class is this assignment for?" or "What is this assignment?" The student must answer either question or both. Then the monitoring personnel

surfing like this: "Only access what you would if your grandparents were sitting beside you." So, how does the school monitor this access? The school has random drug tests and when this testing occurs, the students who are called in for these tests have to bring their computers with them, and the computer history is checked. And school officials also have the right to view anything at anytime because the school owns the computers. However, histories from home usage can be erased, but the school believes that it is the responsibility of the parent(s) or guardian to supervise the students' access at home.

Ross Davis, Director of Technology at Baxter, says that the 1-to-1 initiative prepares their

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